predetermined volume, or the volume of the second medical fluid pumped to the source by the second pump chamber is less than the second predetermined volume, and, if so, under control of the fluid control module, repeating either step (a), if the volume of the first medical fluid pumped to the source is less than the first predetermined volume, or step (b), if the volume of the second medical fluid pumped to the source is less than the second predetermined volume, until both the volume of the first pump chamber meets or exceeds the first predetermined volume, and the volume of the second pump chamber meets or exceeds the second pump chamber meets or exceeds the second pump chamber meets or exceeds the second predetermined volume:

f. repeating steps (a) through (e) until a total volume of the first and the second medical fluids has been delivered that equals the target volume minus a finish volume; and

- g. repeating steps (a) through (e), except in steps (a) and (b), pumping in a second incremental volume which is less than the first incremental volume and less than the finish volume.
- 6. The method according to claim 5, wherein the second incremental volume is $\frac{1}{3}$ of the finish volume.
- 7. The method according to claim 5, wherein the fluid control module operates a first valve between a source of the first medical fluid and the first pump chamber, and operates a second valve between a source of the second medical fluid and the second pump chamber to adjust the first or second incremental volume pumped by the first and second pump chambers.
- **8**. The method according to claim **5**, wherein the second incremental volume is approximately 3 ml or less.

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